

## CLAIMS

### Amendments to the Claims

#### Listing of Claims:

1-41. (Cancelled)

42. (Currently Amended) A method of producing energy, comprising:  
providing a system for generating energy comprising a solvent sealed first chamber;  
providing a sealed pressure-second chamber; and  
providing a semi-permeable barrier separating the solvent-first chamber from the pressure second chamber;  
filling the solvent-first chamber with a solvent;  
filling the pressure-second chamber with a solute solution comprising a solute and solvent;  
providing communication between the solvent solution and solute solution to cause the flowing solvent to flow from the solvent-first chamber to through the semi-permeable membrane barrier into the second chamber,  
utilizing the semi-permeable barrier to restrict solute from flowing into the first chamber while allowing the solvent to flow into the second chamber such that solvent molecules effuse across the semi-permeable membrane into the solute solution, thereby as the solvent flows from the first chamber into the second chamber a void is created in the first chamber such that a vacuum develops in the first chamber and increasing increases the pressure in the pressure second chamber and producing a vacuum in the solvent chamber;  
periodically applying and removing the increased pressure to hydraulically driven drive a member piston which produces a substantial linear movement from which energy-work can be extracted;  
exhausting removing a portion of the solute solution from the pressure-second chamber and transferring the removed portion of the solute solution into a third chamber; and  
providing an input of energy to perform the recycling; and

applying energy to the removed portion of the solute solution in the third chamber  
thereby vaporizing the solvent contained in the removed portion of the solute solution and  
thereby separating the solute in the removed portion of the solute solution; and

recycling the separated solute solution to the second chamber after exhausting the solute  
solution from the pressure chamber by separating solute molecules from solvent molecules in the  
solute solution by applying the vacuum in the solvent chamber to the solute solution while  
vaporizing solvent.

43-46. (Cancelled)

47. (Previously Presented) The method of claim 42, further comprising condensing the vaporized solvent to liquid solvent.

48. (Previously Presented) The method of claim 47, further comprising returning the liquid solvent to the solvent first chamber.

49. (Cancelled)

50. (Currently Amended) A method for producing a linear displacement of an object, comprising:

providing a system including a sealed solvent first chamber;

providing a sealed pressure second chamber; and

providing a semi-permeable barrier separating the solvent first chamber from the pressure second chamber;

filling the solvent first chamber with a solvent;

filling the pressure second chamber with a solute solution;

providing communication between the solvent and the solute solution to cause the flowing solvent to flow from the solvent first chamber to through the semi-permeable membrane barrier into the second chamber;

utilizing the semi-permeable barrier to restrict the solute from entering the first chamber while allowing, such that solvent molecules to flow effuse across the semi-permeable membrane

into the solute solution second chamber, thereby as the solvent flows from the first chamber into the second chamber a void is created in the first chamber such that a vacuum develops in the first chamber and an increasing increase of the pressure in the pressure second chamber and producing a vacuum in the solvent chamber;

periodically applying and removing the increased pressure to a hydraulically driven drive a piston member which produces a substantial linear displacement of the object;

exhausting removing a portion of the solute solution from the pressure second chamber and transferring the portion of the solute solution to a third chamber; and

providing an input of energy to perform the recycling; and

applying energy to the removed portion of the solute solution in the third chamber thereby vaporizing the solvent contained in the removed portion of the solute solution thereby separating the solute in the removed portion of the solute solution; and

recycling the separated solute solution after exhausting the solute solution from to the pressure second chamber by separating solute molecules from solvent molecules in the solute solution by applying the vacuum in the solvent chamber to the solute solution while vaporizing the solvent.

51. (Previously Presented) The method of claim 50, further comprising pressurizing the solvent first chamber.

52. (Previously Presented) The method of claim 51, wherein pressurizing the solvent chamber comprises using an external pressure pump in communication with the solvent first chamber.

53-56. (Cancelled)

57. (Amended) A method for producing a vacuum which is utilized to lower the vapor pressure of a mixture of solvent and solute solution to aid in crystallization of the solute upon the application of an external energy source, comprising:

providing a device comprising a sealed closed solvent first chamber;

providing a sealed solute second chamber; and

providing a semi-permeable barrier separating the solvent-first chamber from the solutesecond chamber;

filling the solvent-first chamber with a solvent;

filling the solute-second chamber with a solute solution;

providing fluid communication between the solvent and the solute solution to cause

flowing the solvent to flow from the solvent-first chamber to through the semi-permeable

membrane barrier into the second chamber, such that solvent molecules effuse across the semi-

permeable membrane into the solute solution;

utilizing the semi-permeable barrier to restrict the solute solution from entering the first

chamber while allowing solvent to flow from the first chamber into the second chamber, thereby

as the solvent flows from the first chamber into the second chamber leaving a void is created in

the first chamber in which thereby forming the vacuum to aid in the crystallization of the solute

develops in the solvent chamber.

58. (Amended) The method of claim 57, further comprising exhausting the solute solution from the solute-second chamber.

59. (Amended) The method of claim 57, further comprising controlling the flow of solvent from the solvent-first chamber.

60-66. (Cancelled)

67. (Currently Amended) The method of claim 42 66, wherein the input application of energy drives the applying vacuum.

68. (Currently Amended) The method of claim 42 66, wherein the input application of energy heats the solute solution to separate solute molecules from solvent molecules.

69. (Cancelled)

70. (Currently Amended) The method of claim 50 69, wherein the input-application of energy drives the applying vacuum.

71. (Currently Amended) The method of claim 50 69, wherein the input-application of energy heats the solute solution to separate solute molecules from solvent molecules.